Is the ‘Tabela’ digital book based on Indonesian values as an alternative learning media in the era of industrial revolution 4.0 a solution?

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ABSTRACT: This study aimed to develop digital books based on Indonesian values. This digital book, named “Tabela,” could be used as a media solution in learning Civic Education courses. The research procedure starts from the activities of demand analysis, development, testing, product revision, and dissemination. The validation results from the experts showed that the Archipelago Insight material which was integrated with Indonesian values got an average of 4.2 so that the category was good and the average evaluation instrument also reached 4.1 so that the category was also good. In its implementation, the “Tabela” digital book was able to make learning easy, interesting, practical, the material was broad, and could be accessed via gadgets.

Keywords: Dayak culture, digital book, Indonesian value, learning media

1 INTRODUCTION

In the scope of higher education, lecturers as educators are required to be able to change the learning paradigm in the form of patterns and strategies that are more student-oriented through the good use of technology, information and communication (ICT). Referring to the results of problem identification carried out by the research team, several problems were found related to the implementation of civic education courses lectures at Palangka Raya University. (1) Student interest in compulsory courses was generally low. (2) Lecturers who teach civic education courses at Palangka University Raya were not comparable to the number of classes with 54 study programs. The total number of lecturers in the general compulsory subject was 10 lecturers who had to teach two thousand students so the ratio was 1: 200 people. (3) There were no media and learning resources in the Citizenship Education course based on ICT that could be used offline or online by student gadgets.

Referring to those problems, concrete action is needed to be alternative solutions in the implementation of learning, especially in civic education courses at Palangka Raya University.

Taking into account the aspects of student specialization, the potential of lecturers as teaching staff and the availability of other supporting resources, the research team tried to design an alternative ICT-based learning media called “Tabela”. In the Dayak language, *Tabela* means youth. In the learning innovative concept of Student-Centered Learning, “Tabela” digital book is a contemporary learning media that suits the souls of young people (Karliani, 2017; Darmaji, et al. 2019; Adi & Muhamad, 2020; Karliani & Triyani, 2020).

“Tabela” digital book is a solution and alternative learning media and learning resource in the era of the industrial revolution 4.0. It applies technological innovations in the learning process and facilitates students to learn independently. It can be accessed via their smartphones independently. It allows students to learn at different places and times, adaptive learning with the equipment they have, according to the abilities and interests of students, there are options that help students learn,

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provide learning by doing, student centered learning experiences, and better student involvement in the learning process. The use of the “Tabela” application can be collaborated with a blended learning model where lecturers can provide clear learning references, monitor, and add to student learning experiences (Fadel & Trilling, 2009; Danwi, 2016; Darmaji et al. 2019, Dina & Daniar, 2019; Adi & Muhamad, 2020).

The application also contains the noble values of Indonesia as a substance. Indonesian values need to be integrated into the material substance because the Civic Education course has a vision to instill nationalism and love for the country. Indonesian values cannot be separated in the learning process in the classroom so that students have a strong inner bond with Indonesia. The Indonesian values integrated in this research are the values in the Dayak culture (Maarif, 2015; Karliani, 2017; Karliani et al. 2018; Karliani & Triyani, 2020). So, the objective of this research is to develop an application namely “Tabela” digital book based on Indonesian value.

2 METHODS

The study used developmental research (R&D). The stages were market demand analysis, development, testing, product revision, and dissemination. The detailed program of this research activity consisted of (1) developing the substance of the Civic Education Course i.e. Archipelago Insights through a blended learning model that allowed students to have full authority on what they want to learn, of course, adjusted to the achievement of competencies and learning needs of each student, (2) developing problem-based evaluation, problem analysis was obtained based on the assignment to identify factual problems that occurred in society, (3) developing and testing the “Tabela” digital book which was applied to lecture activities in the Civic Education course, (4) the implementation and reflection of the application of the “Tabela” digital book were carried out in small classes for 62 Civic Educations Department students of the third semester who took Civic Education courses.

3 RESULTS AND DISCUSSION

3.1 *Substance development of civic education course*

The 21st century is a century of openness or globalization, where learning content is able to fulfill 21st century skills i.e. (1) learning and innovation skills including mastery of diverse knowledge and skills, learning and innovation, critical thinking and problem solving, communication and collaboration, creativity and innovation, (2) digital literacy skills include information literacy, media literacy and ICT literacy, (3) career and life skills include flexibility and adaptability, initiative, social and cultural interactions, productivity and accountability, leadership and responsibility (Fadel & Trilling, 2009; Danwil, 2016; Wibawa, 2018; Azis, 2018). This research product aimed to accommodate 21st century skills by integrating them with Indonesian values (Dayak culture).

Dayak Unity in the Dayak community is a community to complement each other, ready to serve in the interests of the nation and the country with the philosophy of “Huma Betang,” which means we must respect our culture and values. The meaning of *Huma Betang* symbolizes the unifier for living with mutual understanding and upholding human rights. One of the terms that describes the value of Indonesia in Dayak culture is *sapphire kambu tapih kalute kakejau tampayah* (good or bad a person’s behavior or words show how little or much knowledge a person has). These values are integrated in the “Tabela” digital book.

The experts of Civic Education and Dayak culture assessed the Civic Education Prototype Substance by focus group discussion. The results showed both in terms of substance and Indonesian values, it got an average rating of 4.2 in the “Good” category. The results related to the development of the substance of the Civic Education material based on input from resource persons and lecturers of the Civic Education course showed that the substance needs to be equipped with case examples depicted through videos, pictures, or descriptions of problems that occur in a society that require problem-solving solutions.

3.2 *The development of learning evaluation instruments with self-evaluation principles*

For the developing learning process, it is not limited to material, methods, and media. However, it needs a measuring instrument that is in accordance with the model being developed based on Higher-Order Thinking Skills (Yulianti, 2018; Rosidin et al. 2019). Evaluation based on factual phenomena in society is shown to stimulate students to think critically and to put more emphasis on students to internalize the values of citizenship. The research team developed learning evaluation with the principle of self-evaluation. They prepared a grid of actual problem cases which would be used as an evaluation instrument.

Higher-Order Thinking Skills-oriented evaluation development aimed to prepare students for having the ability to live as individuals and citizens who are productive, creative, innovative and effective and able to contribute to the life of society, nation, state and world civilization. Educational evaluation experts validate the assessment instrument prototype through focus group discussions. The results showed that the average rating was 4.1 in the “Good” category. So, a problem-based evaluation prototype could be used to measure the achievement of student learning outcomes well.

3.3 *The development of the “Tabela” digital book in the learning process*

The development of information technology can be used in the learning process. Learning that adopts technology is learning that can adapt to the times. The storyboard of the “Tabela” digital book consisted of 16 pages. Cover Page was the initial display of the digital book “Tabela” which contained the title, year of manufacture and the identity of the drafting team. Sub Topics page or homepage contained four sub-topics i.e. The Concept of Archipelago Insights; The Historical, Sociological and Political Sources of Archipelago Insights; Dynamics and Challenges of Archipelago Insights; and the Essence and Urgency of Archipelago Insight.

Page 3 contained a preview of material. Page 4 described the concept and urgency of the Archipelago Insights according to Hasnan Habib, Wan Usman, and the National Defense and People’s Consultative Assembly. Page 5 described other meanings of the Archipelago Insights etymologically and terminologically. Page 6 described historical sources of Archipelago Insights. Page 7 described the sociological sources of Archipelago Insights. Page 8 described the political sources of archipelago insights. Page 9 described the concept of Archipelago Insights which originated from the Djuanda Declaration in 1957. Page 10 described the dynamics and challenges of Archipelago Insights. Page 11 described further about the dynamics and challenges of the Archipelago Insights integrated with the Indonesian values of the Dayak people: “*Sapire kambu tapih kalute kakejau tampayah*” which means “good or bad a person’s behaviour or words show how little or much knowledge a person has”.

Page 12 described the essence and urgency of archipelago insights. Page 13 described the continued sub-topic of the essence and urgency of Archipelago Insights. Page 14 displayed the start page of self-evaluation. Page 15 displayed independent evaluation that consisted of 10 varied questions with several alternative answers. Page 16 is a closing page that is filled with the final appearance.

“Tabela” digital book makes the learning process more interesting and easier for lecturers and students alike. Through this application, the ease of Civic Education lecturers is that materials, methods, media, sources and evaluations can be accessed holistically from one application. Second, it accommodated individual learning where students would learn with equipment that was adaptive to their abilities. (Fadel & Trilling, 2009; Danwil, 2016; Wibawa, 2018; Azis, 2018; Dina & Daniar, 2019; Adi, 2020). The digital book “Tabela” facilitated opportunities for distance and independent learning.

3.4 *The implementation and reflection of the “Tabela” digital book in the learning process of civic education courses*

The implementation of “Tabela” digital book in the classroom was carried out on a limited scale in Civic Education Program Study. The class consisted of 62 students through a zoom meeting on

September 20, 2020. The team distributed the link of “Tabela” digital book. Students could open it after successful registration.

After this application was implemented, students reflected the implementation of the “Tabela” digital book in realizing the Indonesian value as a solution alternative learning media in the era of industrial revolution 4.0 through a Google Form. The following table is a reflection of the implementation over “Tabela” digital book.

Table 1. Students’ reflection results

No	Response	Expectation	Suggestion
1.	Makes it easy to learn and teach	Can be applied in everyday life	Add more animation and coloring variants that are more attractive and easier to like by today’s students
2.	It is very practical and makes learning activities easier	Hopefully it will always be instilled in life, Civic Education learning is very important to learn	It is easier to go to the next page
3.	Incredible	More motivating and encouraging students to learn	Hopefully it will be even better
4.	Good	Become better	The material is further elaborated
5.	Very good and good for the learning process that improves the learning system	Civic Education can be more developed and more advanced in application usage technology	In Civic Education learning using applications, it is best if efforts are made not to use data or internet networks so that all students can access them
6.	Very useful	This application can be implemented in the lecture process	Hopefully it will be improved even more
7.	Very useful, efficient and effective	The hope is that the material published is more reproduced	The e-book is more colorful so it’s fun and funny
8.	Excellent	Hopefully it makes it easy for users	Add images related to Civic Education
9.	Very good and can learn more widely	Become greater	The table application is more updated and made as attractive as possible so that those who want to learn it do not feel bored
10.	Interesting because it follows current developments that use technology	Hopefully the technology will continue to advance	Hopefully this application is further improved so that it is easier to learn
11.	Make it easier for students to learn	Hopefully in the future it can be even better and can learn to use this application	The application is further expanded to make learning easier
12.	Very good for students to be fast in doing questions	The hope is that the learning will be easier to understand	Criticism and suggestions on the assessment
13.	Practical and enjoyable	In the future this learning will be of greater interest to all students	Getting better and easier in learning
14.	It is very easy for students to answer and look for material, very useful	increases the speed of responsiveness in learning.	the e-book is good
15.	Very helpful in learning	I can study well and get good grades	it can be used by many people other than students
16.	Provides a fast system that is very complete	It can influence life in the nation and state	Increase it again so that IOS users can also learn to use
17.	Exciting	In the future it will be even better in supporting education	The attached quiz questions are the same but the answers are different
18.	Very helpful, can speed up the teaching and learning process	Increase our motivation for the enthusiasm to learn, expand our knowledge in Civic Education	My suggestion is easier to access, terms of the size is large enough to install

(Resourse: self-processed data)

To achieve 21st century skills, learning trends and best practices must be adjusted. ICT-based learning is no longer just a discourse or a vision, but must be a real action at every level of education, including higher education. Therefore, every lecturer must be literate towards technology and be able to apply it in learning in the classroom (Graham & Dziuban, 2007; Fadel & Trilling, 2009; Danwil, 2016; Wibawa, 2018; Azis, 2018; Dina & Daniar, 2019; Adi & Muhamad, 2020).

4 CONCLUSIONS

“Tabela” digital book based on Indonesian values is an innovation in higher education learning by elaborating on Indonesian media, material and values. The integration of Dayak culture as Indonesian values into material substance of Archipelago Insights material could stimulate the students to become members of a community that complement each other, ready to serve in the interests of the nation and the state. In addition, the students responded positively to “Tabela” digital book positively. It makes learning easy, interesting, practical, extensive material, and could be accessed via gadgets. digital book “Tabela” is an alternative learning solution in the era of the industrial revolution 4.0.

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